SUBSTITUTE SPECIFICATION

PATENT

METHOD INTENDED FOR GRADUAL DEFORMATION OF SEQUENTIAL SIMULATIONS OF A HETEROGENEOUS MEDIUM SUCH AS AN UNDERGROUND ZONE

ABSTRACT

A method of gradual deformation of representations or realizations, generated by sequential simulation, not limited to a Gaussian stochastic model of a physical quantity z in a meshed heterogeneous medium, in order to adjust the model to a set of data relative to the structure or the state of the medium which are collected by previous measurements and observations. The method comprises applying a stochastic model gradual deformation algorithm to a Gaussian vector with N mutually independent variables which is connected to a uniform vector with N mutually independent uniform variables by a Gaussian distribution function so as to define realizations of the uniform vector, and using these realizations to generate representations of the physical quantity z that are adjusted to the data.